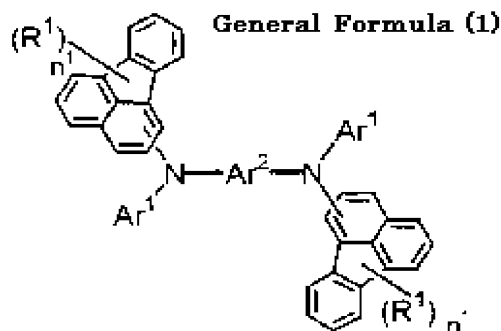


CLAIMS

1. An organic light-emitting material characterized in that the material is used in a light emitting layer in a green light emitting element and represented by the following
 5 general formula (1):



wherein:

n^1 is an integer of 0 to 3;

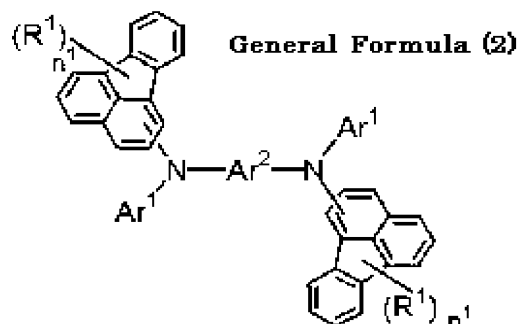
R^1 is an alkyl group having 10 carbon atoms or less;

- 10 Ar^1 is a monovalent group which is derived from monocyclic or fused-ring aromatic hydrocarbon having 20 carbon atoms or less, and which optionally has a substituent having 10 carbon atoms or less; and

- Ar^2 is a divalent group which is derived from a ring assembly having 30 carbon atoms or less and being comprised of monocyclic or
 15 fused-ring aromatic hydrocarbon having 1 to 3 rings, and which optionally has a substituent having 4 carbon atoms or less.

2. The organic light-emitting material according to claim 1, characterized in that, in the general formula (1) above, Ar^1 is an unsubstituted phenyl group, n^1 is 0, and Ar^2
 20 is a divalent group derived from unsubstituted biphenyl.

3. An organic light-emitting material represented by the following general formula (2):



wherein:

n^1 is an integer of 0 to 3;

R^1 is an alkyl group having 10 carbon atoms or less;

5 Ar^1 is a monovalent group which is derived from monocyclic or fused-ring aromatic hydrocarbon having 20 carbon atoms or less, and which optionally has a substituent having 10 carbon atoms or less; and

10 Ar^2 is a divalent group which is derived from a ring assembly having 30 carbon atoms or less and being comprised of monocyclic or fused-ring aromatic hydrocarbon having 1 to 3 rings, and which optionally has a substituent having 4 carbon atoms or less,

15 with the proviso that the case where said monovalent group is an unsubstituted phenyl group, said divalent group is a divalent group derived from unsubstituted biphenyl, and each of two fluoranthenes is bonded to nitrogen at the carbon numbered 3 is excluded.

4. The organic light-emitting material according to claim 3, characterized in that the organic light-emitting material represented by the general formula (2) above is a light emitting material used in a light emitting layer in a green light emitting organic
20 element.

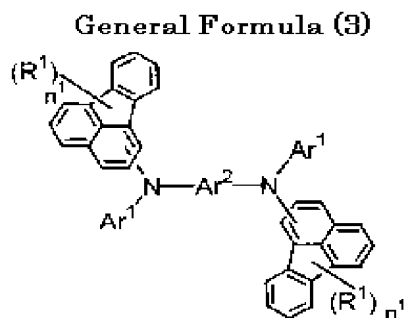
5. The organic light-emitting material according to claim 3, characterized in that the ring assembly constituting Ar^2 in the general formula (2) above is biphenyl,

binaphthyl, or bianthracenyl.

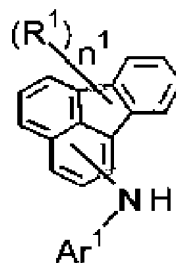
6. The organic light-emitting material according to claim 3, characterized in that the monovalent group, which is derived from monocyclic or fused-ring aromatic hydrocarbon, constituting Ar^1 in the general formula (2) above has a substituent having 10 carbon atoms or less.

7. The organic light-emitting material according to claim 6, characterized in that said substituent having 10 carbon atoms or less is an alkyl group selected from a methyl group, an ethyl group, an i-propyl group, and a t-butyl group, or a phenyl group.

8. A method for producing an organic material represented by the general formula (3) below, characterized by reacting a compound represented by the general formula (4)-1 below with a compound represented by the general formula (4)-2 below using a metal catalyst:



General Formula (4)-1



General Formula (4)-2



20

wherein:

in the general formula (3) and general formula (4)-1 above,

n^1 is an integer of 0 to 3;

R^1 is an alkyl group having 10 carbon atoms or less; and

25 Ar^1 is a monovalent group which is derived from monocyclic or fused-ring aromatic hydrocarbon having 20 carbon atoms or less, and which

optionally has a substituent having 10 carbon atoms or less;

in the general formula (3) and general formula (4)-2 above,

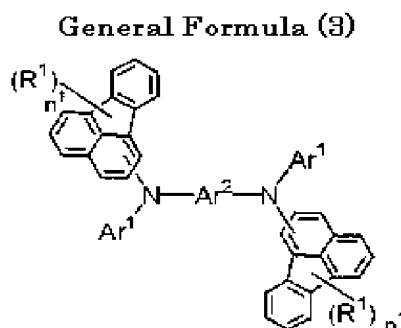
Ar^2 is a divalent group which is derived from a ring assembly having 30 carbon atoms or less and being comprised of monocyclic or fused-ring aromatic hydrocarbon having 1 to 3 rings, and which optionally has a substituent having 4 carbon atoms or less; and

in the general formula (4)-2 above,

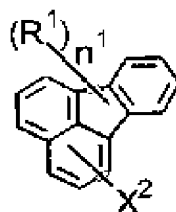
X^1 is a halogen atom or a perfluoroalkanesulfonic ester group.

9. The method for producing an organic material according to claim 8, characterized in that the ring assembly constituting Ar^2 in the general formula (4)-2 above is biphenyl, binaphthyl, or bianthracenyl.

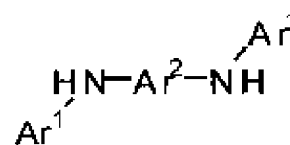
10. A method for producing an organic material represented by the general formula (3) below, characterized by reacting a compound represented by the general formula (5)-1 below with a compound represented by the general formula (5)-2 below using a metal catalyst:



General Formula (5)-1



General Formula (5)-2



- wherein:
- in the general formula (3) and general formula (5)-1 above,
- n^1 is an integer of 0 to 3, and
- R^1 is an alkyl group having 10 carbon atoms or less;
- in the general formula (5)-1 above,

X^2 is a halogen atom or a perfluoroalkanesulfonic ester group; and
in the general formula (3) and general formula (5)-2 above,

Ar^1 is a monovalent group which is derived from monocyclic or
fused-ring aromatic hydrocarbon having 20 carbon atoms or less, and
5 which optionally has a substituent having 10 carbon atoms or less, and

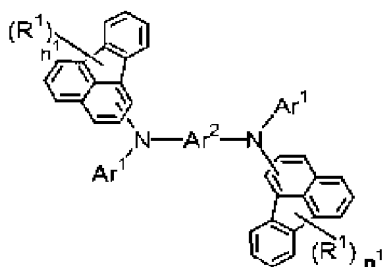
Ar^2 is a divalent group which is derived from a ring assembly
having 30 carbon atoms or less and being comprised of monocyclic or
fused-ring aromatic hydrocarbon having 1 to 3 rings, and which optionally
has a substituent having 4 carbon atoms or less.

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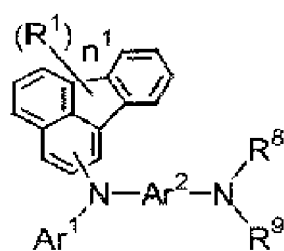
11. The method for producing an organic material according to claim 10,
characterized in that the ring assembly constituting Ar^2 in the general formula (5)-2
above is biphenyl, binaphthyl, or bianthracenyl.

12. A method for producing an organic material represented by the general formula
(3) below, characterized by reacting a compound represented by the general formula
(6)-1 below with a compound represented by the general formula (6)-2 below using a
metal catalyst:

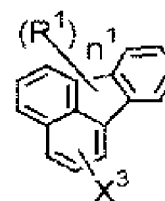
General Formula (3)



General Formula (6)-1



General Formula (6)-2



20

wherein:

in the general formula (3) and general formulae (6)-1 and (6)-2
above,

n^1 is an integer of 0 to 3, and

R^1 is an alkyl group having 10 carbon atoms or less;

in the general formula (3) and general formula (6)-1 above,

5 Ar^1 is a monovalent group which is derived from monocyclic or fused-ring aromatic hydrocarbon having 20 carbon atoms or less, and which optionally has a substituent having 10 carbon atoms or less, and

Ar^2 is a divalent group which is derived from a ring assembly having 30 carbon atoms or less and being comprised of monocyclic or fused-ring aromatic hydrocarbon having 1 to 3 rings, and which optionally
10 has a substituent having 4 carbon atoms or less;

in the general formula (6)-1 above, R^8 is a hydrogen atom or Ar^1 , and R^9 is a hydrogen atom; and

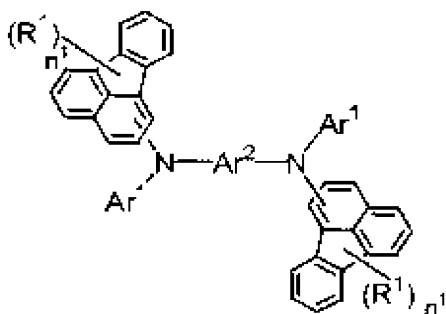
in the general formula (6)-2 above, X^3 is a halogen atom or a perfluoroalkanesulfonic ester group.

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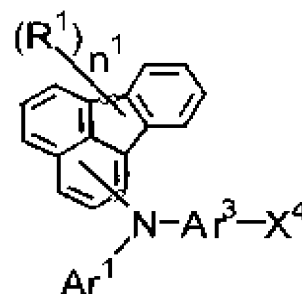
13. The method for producing an organic material according to claim 12, characterized in that the ring assembly constituting Ar^2 in the general formula (6)-1 above is biphenyl, binaphthyl, or bianthracenyl.

20 14. A method for producing an organic material represented by the general formula (3) below, characterized by reacting a compound represented by the general formula (7) below using an equivalent amount of a metal, a metal salt, or a metal catalyst:

General Formula (3)



General Formula (7)



wherein:

in the general formula (3) and general formula (7) above,

n^1 is an integer of 0 to 3,

5 R^1 is an alkyl group having 10 carbon atoms or less, and

Ar^1 is a monovalent group which is derived from monocyclic or fused-ring aromatic hydrocarbon having 20 carbon atoms or less, and which optionally has a substituent having 10 carbon atoms or less;

in the general formula (3) above,

10 Ar^2 is a divalent group which is derived from a ring assembly having 30 carbon atoms or less and being comprised of monocyclic or fused-ring aromatic hydrocarbon having 1 to 3 rings, and which optionally has a substituent having 4 carbon atoms or less; and

in the general formula (7) above,

15 Ar^3 is a divalent group which is derived from monocyclic or fused-ring aromatic hydrocarbon having 1 to 3 rings, and which optionally has a substituent having 4 carbon atoms or less, and

X^4 is a halogen atom or a perfluoroalkanesulfonic ester group.

20 15. The method for producing an organic material according to claim 14, characterized in that the compound represented by the general formula (7) above is reacted with a compound corresponding to the compound represented by the general formula (7) wherein X^4 is changed to magnesium halide, boric acid, or borate.

25 16. The method for producing an organic material according to claim 14, characterized in that, in the general formula (7) above, Ar^3 is a divalent group derived from benzene, naphthalene, or anthracene.